

## The supposed significance of originally capitalized species-group names

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The increasing number of publications on birds, including numerous handbooks and checklists, brings to light how useful standard zoological nomenclature can be in making sense out of a diversity of taxonomies and classifications. The authors of some of these recent compendia (e.g. Sibley & Monroe 1990, Andrew 1992, Dowsett & Dowsett-Lemaire 1993, Christidis & Boles 1994, Inskipp *et al.* 1996) have occasionally commented on the correct use and spelling of scientific names. One of the most puzzling statements in this respect was made repeatedly by Sibley & Monroe (1990: 88, 537), to the effect that capitalization of original species-group names indicated nouns in apposition, and that the ending of such names should therefore always remain unchanged. We believe that this statement by Sibley & Monroe originates from a similar claim made by Parkes (1982), who was careful, however, to apply it only to Linnaeus.

*Tringa Fulicaria* Linnaeus, 1758, has been known for the better part of the last 150 years as *Phalaropus fulicarius* or *Crymophilus fulicarius* (e.g. Sharpe 1896, AOU 1957, Voous 1973). Yet, Parkes (1982), quoting Oberholser (1974), has argued that Linnaeus, in using a capital initial letter, had intended to regard *Fulicaria* as a noun, and that, therefore, the correct spelling of the name should be "*Phalaropus fulicaria*". This practice has since been followed by some authors (e.g. AOU 1983, Sibley & Monroe 1990, del Hoyo *et al.* 1996), but not by others, who have continued to use *Phalaropus fulicarius* (Urban *et al.* 1986, BOU 1992, Dowsett & Dowsett-Lemaire 1993, Howard & Moore 1994, Higgins & Davies 1996, Snow & Perrins 1998).

Although it is true that Linnaeus capitalized most of the species-group names that he used as nouns, some of these capitalized names are adjectives nevertheless. Examples from among his Aves include:

- *Pelecanus Aquilus* Linnaeus, 1758 [now *Fregata aquila* —see below];
- *Pelecanus Bassanus* Linnaeus, 1758 [now *Morus bassanus* or *Sula bassana*];
- *Cancroma Cochlearia* Linnaeus, 1758 [now *Cochlearius cochlearius* —see below];
- *Anas Albeola* Linnaeus, 1758 [now *Bucephala albeola*];
- *Tringa Hypoleucos* Linnaeus, 1758 (a Greek adjective).

On the other hand, Linnaeus printed without a capital initial letter some species-group names that are nouns, and not adjectives, e.g.:

- *Tetrao umbellus* Linnaeus, 1766 [now *Bonasa umbellus* —see below];
- *Psittacus erithacus* Linnaeus, 1758 (see below);
- *Alcedo erithaca* Linnaeus, 1758 [*Alcedo Erithaca* in Linnaeus, 1766] (see below);
- *Turdus atricapilla* Linnaeus, 1766 (see below).

The International Code of Zoological Nomenclature is silent regarding the supposed significance of originally capitalized species-group names, only prescribing that “the initial letter must be replaced with a lower case letter” (ICZN 1999: Art. 32.5.2.5).

In the works of Linnaeus, as in those of any other author, the nature of Latin words must be determined from Latin dictionaries, and other relevant sources when necessary. Inconsistencies in the use of typeface do not override Latin, the assumption of which is one of the basic tenets of the Code (ICZN 1999, Art. 11.3, Glossary p. 107).

Linnaeus’ upper cases may have relevance in indicating a noun when they are applied to a word that can be regarded as either a noun or an adjective (ICZN 1999, Art. 31.2.2). For example, in *Lanius Garrulus* Linnaeus, 1758 [now *Bombycilla garrulus*], and in *Psittacus garrulus* Linnaeus, 1758 [now *Domicella garrula* (in Wolters 1982) or *Lorius garrulus* (in del Hoyo *et al.* 1997)], the Latin word *garrulus* can be either a noun [chatterer] or an adjective [garrulous]. Here, the presence of an upper or a lower case, in conjunction with the original diagnosis and the sources quoted by Linnaeus, can be invoked to show a distinction between these two meanings (Newton, in Parkes 1958).

### ***Tringa Fulicaria* Linnaeus, 1758**

In *Tringa Fulicaria* Linnaeus, 1758, *Fulicaria* is the word *fulica* [coot], to which was added the Latin adjectival suffix *-aria* [belonging, or related to] (Woods 1944: XII); this is in reference to the coot-like feet of the Red Coot-footed Tringa [of Edwards 1743], quoted by Linnaeus as the source for his species. No one has ever questioned Linnaeus’ intention to use Latin, and *-arius*, *-aria*, *-arium* are indisputable Latin adjectival suffixes indicating attribution or relatedness (Woods 1944, Brown 1978). In a similar fashion, *Corvus Graculinus* White, 1790, and *Crypturus perdicarius* Kittlitz, 1830, are now known respectively as *Strepera graculina* and *Nothoprocta perdicaria* (see Peters 1962, 1979). The former specific name is composed of the Latin noun *graculus* [jackdaw] and of the adjectival suffix *-inus*, *-ina*, *-inum* [having the properties of], and the latter comes from *perdix*, *-icis* [partridge], followed by *-arius*, *-aria*, *-arium* [related to] (Woods 1944). The new derived words are adjectival species-group names, the ending of which “must agree in gender with the generic name with which they are at any time combined” (ICZN 1999, Art. 34.2).

“Where the author of a species-group name did not indicate whether he or she regarded it as a noun or as an adjective, and where it may be regarded as either and the evidence of usage is not decisive, it is to be treated as a noun in apposition to the name of its genus” [ICZN 1999, Art. 31.2.2 —italics ours]. Neither of these two conditions applies in the case of *Tringa Fulicaria*, let alone both of them. The word *fulicaria* is not a Latin noun, but an adjectival name, and therefore the current correct spelling for *Tringa Fulicaria* Linnaeus, 1758, is indeed *Phalaropus fulicarius*, as mandated by Art. 34.2 of the ICZN Code (1999).

Because the capital initial letter is the only argument put forward by Parkes (1982) for regarding *Fulicaria* as a noun, it is important to note that Linnaeus printed *fulicaria* with a lower case in the 1766 edition of his *Systema Naturae*.

### ***Cancroma Cochlearia* Linnaeus, 1766**

In a similar vein, the correct current combination for *Cancroua Cochlearia* Linnaeus, 1766, is *Cochlearius cochlearius* (as per Peters 1979, AOU 1983, del Hoyo *et al.* 1992), even though Sibley & Monroe (1993: 44) have advocated the use of “*Cochlearius cochlearia*”, apparently arguing again that capitalization of the original species-group name indicated a noun in apposition. In this case, however, the claim of Sibley & Monroe has been ignored by subsequent authors, such as Howell & Webb (1995) and the AOU (1998). Here, the Latin neuter noun *cochlear* [spoon] is followed by the adjectival suffix *-ius*, *-ia*, *-ium* (Woods 1944), therefore meaning “spooned”.

### ***Pelecanus Aquilus* Linnaeus, 1758, and *Tetrao umbellus* Linnaeus, 1766**

*Pelecanus Aquilus* Linnaeus, 1758, and *Tetrao umbellus* Linnaeus, 1766, are instructive for our purpose. In *Pelecanus Aquilus*, Linnaeus has used the classical Latin adjective *aquilus* [dark-coloured], not the Latin noun *aquila* [eagle] (Lewis 1879); consequently, subsequent authors have used the combination *Fregata aquila* (i.e. the feminine of *aquilus*). On the other hand, there is no such Latin word as *umbellus*, but *umbella* is a classical Latin noun, meaning umbrella or parasol (Coues 1903: 741, Jobling 1991). Although Linnaeus has altered its termination (and gender), *umbellus* is not a Latin adjective, and has none of the attributes of a Latin adjective; it must therefore be treated as a noun and remain unchanged when combined with the feminine genus *Bonasa* (as per ICZN 1999, Art. 31.2.1, 31.2.2). Treating *umbellus* as a wholly new word that is neither Latin nor latinized would also make it invariable (ICZN 1999, Art. 31.2.3). Whether or not Linnaeus had meant to use *umbellus* as an adjective in combination with the masculine noun *Tetrao* (see Coues 1903: 741) is irrelevant under the present ICZN Code, since it is not a Latin adjective. Therefore, subsequent authors have always used the combination *Bonasa umbellus*, and rightly so.

As in most other cases, the presence of a capital initial letter in *Aquilus*, and its absence in *umbellus* have no bearing on the real nature of these words.

### ***Alcedo erithaca* Linnaeus, 1758**

The word *erithacus* is a classical Latin noun (Lewis 1879), usually associated with the Robin (*Erithacus rubecula*), the Redstart (*Phoenicurus phoenicurus*), or some sort of mimetic bird (Jobling 1991). Linnaeus (1758, 1766) used an upper case in the combination *Motacilla Erithacus* (= *Phoenicurus phoenicurus*), and a lower case in the combination *Psittacus erithacus* (the Grey Parrot, a red-tailed bird like the Redstart). In both combinations, the species-group name *erithacus* is a Latin noun



and its ending “must not be changed to agree in gender with the generic name [Art. 31.2.1]” (ICZN 1999, Art. 34.2.1).

In the combination *Alcedo erithaca* Linnaeus, 1758 [printed *Alcedo Erithaca* by Linnaeus in 1766], the name *erithaca* is a neologism derived from a noun (like *umbellus* from *umbella*, quoted above); it is not a Latin adjective nor an adjectival form, and shall thus remain unchanged (as per ICZN 1999, Art. 31.2.1, 31.2.2, 31.2.3, 32.3). Consequently, the current correct spelling for *Alcedo erithaca* Linnaeus, 1758 is *Ceyx erithaca*, and not “*Ceyx erithacus*” as was used by Peters (1945), Sibley & Monroe (1990), etc.

### ***Turdus atricapilla* Linnaeus, 1766**

The word *atricapilla* is a classical Latin noun for a bird [generally identified as the Blackcap, *Sylvia atricapilla*] and the feminine form of the classical Latin adjective *atricapillus* [black-haired] (Lewis 1879). The fact that Linnaeus has used *atricapilla* in apposition to the masculine genus *Turdus* indicates that the word can only be a noun, not an adjective — which would have been *atricapillus* in this case, as all adjectives used by Linnaeus in combination with *Turdus* are masculine (*plumbeus*, *roseus*, *cafer*, *dominicus*, etc.). Therefore, the correct current spelling for *Turdus atricapilla* Linnaeus, 1766, is *Donacobius atricapilla*, and not “*Donacobius atricapillus*” as was used by Peters (1960), Sibley & Monroe (1990), etc.

## **Discussion**

The use of capital letters in ornithological works of the 18th and 19th Centuries was uneven, to say the least. Many adjectival species-group names were commonly spelled with an initial upper case, some typesetters even making a practice of it. Random examples taken from Peters’ *Check-list of birds of the world* (1934-1986) include:

*Colymbus Stellatus* Pontoppidan, 1763 [now *Gavia stellata*];  
*Charadrius Dominicus* Müller, 1776 [now *Pluvialis dominica*];  
*Paradisaea Magnifica* Pennant, 1781 [now *Cicinnurus magnificus*];  
*Motacilla Galeata* Boddaert, 1783 [now *Lophotriccus galeatus*];  
*S[faltator] Flavus* Vieillot, 1822 [now *Piranga flava*];  
*Fringilla Agilis* Tickell, 1833 [now *Dicaeum agile*].

Some early authors may have had their own logic in the use of typeface, but the provisions of the ICZN Code (1999) now prevail.

In the works of Linnaeus, as well as in those of any other author, the use of upper or lower cases in species-group names has no significance in itself, and may have relevance only in the few situations where two meanings might be involved. Such situations must be evaluated on an *ad hoc* basis, and the upper case alone cannot be invoked as an indication that we are dealing with a noun. Otherwise, anyone advocating the use of “*Phalaropus fulicaria*”, based solely on the presence of a capital initial letter in Linnaeus (1758), should also advocate the use of “*Fregata aquilus*”, “*Bonasa umbella*”, etc.

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## **New records of birds from the island of Panay, Philippines**

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Dickinson *et al.* (1991) summarized the ornithological history of the island of Panay in the central Philippines and included all known published records of birds from there prior to 1990. Although Sonnerat (1776) first collected on the island in 1771 or 1772, more than a century passed before major collections were made by the Steere Expeditions in December 1874 (Sharpe 1876, 1877) and January 1888 (Steere 1890), and by the Menage Expedition (Bourns and Worcester 1894) in November 1890. Until recently, these expeditions formed the foundation of ornithological knowledge of the island.

During the early part of the 20th century, naturalists neglected Panay, possibly because the lowland forests had already been extensively denuded and the mountain range running along the west coast was not easily accessible. Also, they may have felt the mountains not sufficiently high (the highest peak, Mt Madja-as is 2,117 m) nor extensive to support an unique montane fauna. Simply, the likelihood of finding "ornithological novelties" on the island seemed to be very low.

Fortunately, in February and March 1987, R. Cox and Sison set out to survey the remaining forests of the western mountain range for the endangered Visayan Spotted Deer *Cervus alfredi*. They focused on Mt Baloy (1,910 m), which lies at the junction of the provinces of Antique, Iloilo and Capiz. During this survey, Sison collected 77 bird specimens as well as several hundred mammals, reptiles and amphibians. Among the specimens were a number of new records for Panay, as well as an unidentified babbler and an unidentified large rodent which have since been described as new